November 19, 1971

Dr. T. Ando
Laboratory of Microbiology
Institute of Physical and Chemical Research
Yamato - Madri
Saitama - Ken
351, Japan

Dear Dr. Ando:

For the past year I have been using batch elution from hydroxyapatite to analyze DNA reassociation. The objects of our experiments - as indicated in the enclosed manuscripts - have been to characterize the DNA made by the RNA dependent DNA polymerase associated with the RNA tumor viruses and to use this DNA as a probe for detection of tumor virus sequences in cell DNA.

Recently Dr. Michael Bishop and I have examined the activity of a single strand-specific nuclease from Neurospora crassa, using the product of reverse transcriptase as substrate. Our aims were to charactrize this product further, to examine the DNA after reassociation with itself and with cell DNA, and to use the enzyme as a time-saving replacement for hydroxyapatite analysis of C_0t curves. Unfortunately the activity we have obtained from our Neurospora & conidia has not been very great, although it is highly specific for single stranded DNA. In addition, it is extremely sensitive to high salt concentrations. As a result, it is not proving very valuable to us.

Yesterday, I talked with Dr. Paul Berg of Stanford and he told me about the beautiful results he has obtained using your enzyme to measure DNA reassociation. At his suggestion, I am writing now to ask for your current method of preparing the enzyme. (We have been aware of your work and, in fact, ordered Takadiastase from Sankyo a few weeks ago.) Would it be possible for you to send us some of your enzyme to work with until we are able to extract our own? We would naturally acknowledge the debt in any publications and would keep you informed of our experience with the enzyme - and of how it compares in our hands with our Neurospora activity. Can you send us, in addition, references to your work with the enzyme since the article in BBA 114: 158, 1966?

Thanking you in advance, I am.

Yours truly,

Harold E. Varmus, M.D.
Department of Microbiology